INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

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Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

October 9, 2003

TO: Interested Parties / Applicant

RE: American Finishing Resources, Inc. / 145-17964-00061

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot 9/16/03

October 9, 2003

Mr. Doug Poe
American Finishing Resources, Inc.
476 Clay Street, P. O. Box 164
Chilton, WI 53014

Dear Mr. Poe:

Re: Exempt Construction and Operation Status,
145-17964-00061

The application from American Finishing Resources, Inc., received on September 12, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission units, to be located at 1329 W 400 N Fairland Road, Shelbyville, IN 46176, are classified as exempt from air pollution permit requirements:

(a) One (1) heat cleaning incinerator, identified as P1, with a maximum capacity of 200 pounds paint coating per 6.5 – 7.5 hr batch, using natural gas as supplemental fuel at a maximum heat input capacity of 2.0 mmBtu/hr.

(b) One (1) heat cleaning incinerator, identified as P2, with a maximum capacity of 400 pounds paint coating per 3.5-7.5 hr batch, using natural gas as supplemental fuel at a maximum heat input capacity of 3.0 mmBtu/hr.

(c) One (1) heat cleaning incinerator, identified as P3, with a maximum capacity of 400 pounds paint coating per 3.5-7.5 hr batch, using natural gas as supplemental fuel at a maximum heat input capacity of 3.0 mmBtu/hr.

(d) One (1) heat cleaning incinerator, identified as P4, with a maximum capacity of 400 pounds paint coating per 3.5-7.5 hr batch, using natural gas as supplemental fuel at a maximum heat input capacity of 3.0 mmBtu/hr.

(e) Two (2) natural gas-fired dip tank process heaters P5 and P6, each with a maximum heat input capacity of 1.0 mmBtu/hr.

(f) One (1) natural gas-fired parts washer dryer and process heater, identified as P7, with a maximum heat input capacity of 0.816 mmBtu/hr.

(g) Two (2) natural gas-fired make-up air space heaters, identified as MUA1 and MUA2 each with a maximum heat input capacities of 1.1 mmBtu/hr.

(h) One (1) natural gas-fired space heater, identified as F1, with a maximum heat input capacity of 0.06 mmBtu/hr.

(i) Two (2) tanks for liquid cleaning of parts and racks in hot potassium hydroxide (KOH) and sodium hydroxide (NaOH) solutions, respectively.

(j) One (1) tank for storing a 10% hydrochloric acid solution for cleaning parts.

(k) One (1) three-stage parts washer, using sodium hydroxide spray, water rinse, and rust inhibitor sodium nitrate solution spray for cleaning parts and racks.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 4-2-2:

(a) The heat cleaning incinerators P1, P2, P3, and P4 shall comply with the following requirements:

(1) Consist of primary and secondary chambers or the equivalent.
(2) Be equipped with a primary burner unless burning only wood products.

(3) Comply with 326 IAC 5-1 and 326 IAC 2.

(4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection (c).

(5) Not emit particulate matter in excess of the following:

(A) Three-tenths (0.3) pound of particulate matter per one thousand (1000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50 %) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.

(6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

(b) An incinerator is exempt from subsections (a)(5) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.

(c) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:

(1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:
(A) Precodures for receiving, handling, and charging waste.
(B) Procedures for incinerator startup and shutdown.
(C) Procedures for responding to a malfunction.
(D) Procedures for maintaining proper combustion air supply levels.
(E) Procedures for operating the incinerator and associated air pollution control systems.
(F) Procedures for handling ash.
(G) A list of wastes that can be burned in the incinerator.

(2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.

(3) The operation and maintenance plan must be readily accessible to incinerator operators.
(4) The owner or operator of the incinerator shall notify the deoartment, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.

(d) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

(3) Any change or modification that may increase the potential to emit of a single Hazardous Air Pollutant (HAP) to 10 tons per year or greater, or that of Volatile Organic Compounds (VOC) or a combination of HAPs to 25 tons per year or greater shall require prior approval of IDEM, Office of Air Quality.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

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cc: File – Shelby County
Shelby County Health Department
Air Compliance – D. J. Knotts
Permit Tracking
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	**American Finishing Resources, Inc.**
Source Location:	**1329 W 400 N Fairland Road, Shelbyville, IN 46176**
County:	**Shelby**
SIC Code:	**3479**
Exemption No.:	**145-17964-00061**
Permit Reviewer:	**Madhurima D. Moulik**

The Office of Air Quality (OAQ) has reviewed an application from American Finishing Resources, Inc. relating to the construction and operation of a facility for automobile parts and rack reclamation using a combination of heat and liquid cleaning.

Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) heat cleaning incinerator, identified as P1, with a maximum capacity of 200 pounds paint coating per 6.5 – 7.5 hr batch, using natural gas as supplemental fuel at a maximum heat input capacity of 2.0 mmBtu/hr.

(b) One (1) heat cleaning incinerator, identified as P2, with a maximum capacity of 400 pounds paint coating per 3.5-7.5 hr batch, using natural gas as supplemental fuel at a maximum heat input capacity of 3.0 mmBtu/hr.

(c) One (1) heat cleaning incinerator, identified as P3, with a maximum capacity of 400 pounds paint coating per 3.5-7.5 hr batch, using natural gas as supplemental fuel at a maximum heat input capacity of 3.0 mmBtu/hr.

(d) One (1) heat cleaning incinerator, identified as P4, with a maximum capacity of 400 pounds paint coating per 3.5-7.5 hr batch, using natural gas as supplemental fuel at a maximum heat input capacity of 3.0 mmBtu/hr.

(e) Two (2) natural gas-fired dip tank process heaters P5 and P6, each with a maximum heat input capacity of 1.0 mmBtu/hr.

(f) One (1) natural gas-fired parts washer dryer and process heater, identified as P7, with a maximum heat input capacity of 0.816 mmBtu/hr.

(g) Two (2) natural gas-fired make-up air space heaters, identified as MUA1 and MUA2 each with a maximum heat input capacities of 1.1 mmBtu/hr.

(h) One (1) natural gas-fired space heater, identified as F1, with a maximum heat input capacity of 0.06 mmBtu/hr.

(i) Two (2) tanks for liquid cleaning of parts and racks in hot potassium hydroxide (KOH) and sodium hydroxide (NaOH) solutions, respectively.

(j) One (1) tank for storing a 10% hydrochloric acid solution for cleaning parts.

(k) One (1) three-stage parts washer, using sodium hydroxide spray, water rinse, and rust inhibitor sodium nitrate solution spray for cleaning parts and racks.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temp (^{0}F)
S1	Heat Cleaning P1	37.5	1.33	3063	1380
S2	Heat Cleaning P2	38.0	1.5	3063	1380
S3	Heat Cleaning P3	38.0	1.5	3063	1380
S4	Heat Cleaning P4	38.0	1.5	3063	1380
S5	P5 Heater	33.5	0.75	417	455
S6A	P6 Heater	33.5	0.75	417	455
S6B	P6 Ventilation	34.0	2.0	10,450	70
S7A	P7 Stage 1 Heater	32.0	0.5	167	585
S7B	P7 Stage 3 Heater	32.0	0.5	83	365
S7C, S7D	P7 Dryer Vent	33.0	1.0	105	125
S8A	HCl Dip Tank Vent	34.0	2.0	10,450	70
S8B	HCl Dip Tank Vent	33.5	0.33	150	70
S9	Space Heater MUA1	-	-	16,000	70
S10	Space Heater MUA2	-	-	16,000	70
S11	Space Heater F1	25.5	0.33	1200	120
S12	HCl Tank Vent	30.5	0.33	150	70

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on September 12, 2003.

Emission Calculations

See Appendix A of this document for detailed emission calculations for the combustion units.

The paint coatings incinerated at the parts and rack cleaning incinerators contain negligible amounts of VOCs from overspray. Therefore, emissions from the cleaning incinerators = emissions from combustion (included in Appendix A)

The liquid cleaners used at the parts washers at this source do not use any organic solvents. Therefore, there are no emissions of regulated pollutants from the parts washers.

Vehicular Traffic Emissions (estimated by source based on AP-42 Emission Factors):

PM = PM-10 = 1.12 tons per year.

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational

limitation on the capacity of a source to emit an air pollutant, inclulding air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential to Emit (tons/yr)
PM	1.62
PM-10	1.62
SO_2	Negligible
VOC	0.4
CO	5.9
NOx	7.1
HAPs	Negligible

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

County Attainment Status

The source is located in Shelby County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Shelby County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(b) Shelby County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons per year.

This is the first air approval issued to this source.

Federal Rule Applicability

(a) Each of the heat cleaning incinerators P1, P2, P3, and P4 process less than fifty (50) tons per day of material and do not combust municipal waste. Therefore, the heat cleaning incinerators are not subject to the requirements of the New Source Performance Standards for Incinerators, 326 IAC 12 (40 CFR 60.50, Subpart E).

(b) The heat cleaning incinerators, constructed in 2001, are parts reclamation units. Pursuant to 40 CFR 60.2020(k), these units are exempt from the requirements of the New Source Performance Standards for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999, or for Which Modification or Reconstruction is Commenced on or After June 1, 2001 (NSPS)(40 CFR 60.2000, Subpart CCCC).

(c) The heat cleaning incinerators at this source do not process any hazardous wastes. Therefore, these units are not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63, Subpart EEE) for Hazardous Waste Combustors.

(d) The liquid cleaning units and parts washers at this facility are not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63, Subpart T) for Halogenated Solvent Cleaning, because these units do not use any halogenated solvents.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source, located in an attainment area, has a potential to emit of pollutants less than 250 tons per year, and is not one of the 28 listed source categories. Therefore, 326 IAC 2-2 does not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the parts and rack reclamation facility will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Shelby County and the potential to emit of all regulated pollutants are less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in the permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Process Operations)

Incinerators are exempt from rule 326 IAC 6-3-2. Therefore, this rule does not apply to the heat cleaning incinerators.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The parts washers at this source, constructed after 1990, do not use organic solvents for cleaning. Therefore, 326 IAC 8-3-5 does not apply.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements)

The potential VOC emissions from all emission units at this source are below 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

326 IAC 4-2-2 (Incinerators: Requirements)

The heat cleaning incinerators at this facility meet the definition of “incinerator” as defined in 326 IAC 1-2-34, and are not subject to 40 CFR 63, Subpart EEE. Therefore, pursuant to 326 IAC 4-2-1, the ovens are subject to the requirements of 326 IAC 4-2-2.

Pursuant to 326 IAC 4-2-2:

(a) The heat cleaning incinerators shall comply with the following requirements:

(1) Consist of primary and secondary chambers or the equivalent.
(2) Be equipped with a primary burner unless burning only wood products.

(3) Comply with 326 IAC 5-1 and 326 IAC 2.

(4) Be maintained, operated, and burn waste in accordance with the manufacturer’s specifications or an operation and maintenance plan as specified in subsection (c).

(5) Not emit particulate matter in excess of the following:

(A) Three-tenths (0.3) pound of particulate matter per one thousand (1000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50 %) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.

(6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

(b) An incinerator is exempt from subsections (a)(5) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.

(c) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:

(1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:
(A) Precodures for receiving, handling, and charging waste.
(B) Procedures for incinerator startup and shutdown.
(C) Procedures for responding to a malfunction.
(D) Procedures for maintaining proper combustion air supply levels.
(E) Procedures for operating the incinerator and associated air pollution control systems.
(F) Procedures for handling ash.
(G) A list of wastes that can be burned in the incinerator.

(2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.
(3) The operation and maintenance plan must be readily accessible to incinerator operators.

(4) The owner or operator of the incinerator shall notify the deoartment, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.

(d) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

Conclusion

The construction and operation of this facility for automobile parts and rack reclamation using a combination of heat and liquid cleaning shall be subject to the conditions of the Exemption No.: 145-17964-00061.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Combustion Units

Company Name: **American Finishing Resources, Inc.**
Address City IN Zip: **1329 W 400 N Fairland Road, Shelbyville, IN 46176**
Permit Number: **145-17964**
Plt ID: **145-00061**
Reviewer: **Madhurima D. Moulik**
Date: **2-Oct-03**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
16.1	141.0

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.5	0.5	0.0	7.1	0.4	5.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMB
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-0(
(SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Combustion Units
HAPs Emissions

Company Name: American Finishing Resources, Inc.
Address City IN Zip: 1329 W 400 N Fairland Road, Shelbyville, IN 46176
Permit Number: 145-17964
Plt ID: 145-00061
Reviewer: Madhurima D. Moulik
Date: 2-Oct-03

	HAPs - Organics				
	Benzene	Dichlorobenze	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.481E-04	8.462E-05	5.289E-03	1.269E-01	2.398E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.526E-05	7.757E-05	9.873E-05	2.680E-05	1.481E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.